PANTEX PLANT CITIZENS' ADVISORY BOARD

Environmental Monitoring Q's & A's
Texas Department of Health

Q: What are the top areas monitored? How are the priorities set?
A: Pantex Plant boundary and off-site, then on-site. The State is excluded from regulatory authority over radioactive materials on DOE property by the Atomic Energy Act of 1954, and subsequent amendments.

Q: What do we monitor for?
A: We look for evidence of radioactivity migrating from on-site to off-site areas.

Q: Frequency of monitoring-intermittent/continuous and why?
A: We monitor for beta-gamma radiation continuously, using passive monitors around the Plant boundary. These devices are exchanged on a quarterly basis. In addition, we collect environmental samples of various media on a quarterly basis. This program is similar to monitoring of licensees and other areas of radiological interest throughout the state.

Q: What type of reporting is done and could be done in the future to make citizens aware of what is going on?
A: The results of Pantex Plant monitoring are published along with other results in the Texas Department of Health Environmental Monitoring Annual Reports. The Annual reports are provided to the DOE Reading Rooms located at Carson County Public Library and Amarillo College Lynn Library. In addition, in accordance with the provisions of the Agreement in Principle, the thermoluminescent dosimetry results are provided to the Amarillo Area Office as soon as they become available. (roughly on a quarterly basis)

Q: How are monitors placed? Why were they selected? How was the decision made?
A: The passive monitors were placed around the perimeter of the Plant based on the highest probability of exposure to postulated radiation originating in Zone 12, using prevailing wind historical data, site accessibility and field reconnaissance. The media sampling locations were chosen using the same criteria.

Q: Criteria for using Bushland station as background? Why can't we use a third station for background?
A: Defer to Pantex Plant, but have no problem with choice. Recommend against having two "background" locations. Bushland is sufficiently distant that it would not be influenced by Pantex Plant operations, and is located at a facility which should have guaranteed accessibility well into the foreseeable future. We recommend against using more than one background location.

Q: Current or ongoing underground water testing?
A: Sampling for radionuclides is being done on a quarterly basis at the Masterson Well Field Pump Station, and at the City of Panhandle Pecan Avenue Well.

Q: Who are involved in the monitoring(DOE, state agencies, contractors)? Sampling, analysis, reporting, etc.
A: Defer to DOE - Overview briefing.

Q: How is the monitoring done? Techniques and procedures.
A: Monitoring is accomplished utilizing the TDH Environmental Surveillance Handbook. Analytical procedures are documented in the Annual Report.

Q: What is included in "monitoring?" DOE perspective?
A: Defer to DOE.

Q: Routine programs versus other monitoring.
A. The routine monitoring program should relate to areas of potential contaminant release resulting from standard operations, documented in a "Monitoring" or "Sampling" plan. "Other" monitoring may involve investigation of an unusual occurrence or follow-up (confirmatory) sampling for an out-of-normal-range sample result. (potential sample contamination vs real contamination identification)

Q: Where are the monitors? On-site/off-site, air/water.
A: TDHBRC monitors are mainly located on the Pantex Plant perimeter fence. One monitor is located on-site, just south of Zone 12. One monitor is located approximately five miles northeast of Zone 12. One monitor is located at the Osage Water Treatment Plant in Amarillo. These monitors are not air samplers, but the media, through which radiation would potentially travel, is air.

Q: How are the monitors powered? Could alternate energy sources be used?
A: TDH/BRC monitors are thermoluminescent dosimeters, passive monitoring devices, which do not require external power when deployed.

Q: What happens if there is a discrepancy between DOE sampling results and other sampling?
A: An investigation of the situation, including verification of the results, would begin. It is impossible to predict the result: It would all depend on the facts determined at the time.

Q: Put numbers in perspective for the lay person.
A: Probably the best method for the lay person to review sampling results, is to compare them to a standard, preferably regulatory limits. If State regulatory limits are not enforceable, as with on-site radiation, the DOE has self-imposed limits, which are comparable with the State or other standards. We welcome public inquiries in this regard.

Q: What form the data is in when disseminated? At what point are they disseminated? Who receives it? Is there a schedule?
A: Under the AIP, the DOE has committed to compiling and tabulating available sampling data on a quarterly basis. This is essentially "DRAFT", not fully reviewed for public dissemination. This provides the State agencies the opportunity to review the information early on in the process of publication. The data is then compiled into a single Annual Report. When DOE Headquarters has reviewed the Annual Report, it is released for public distribution, to the State agencies and DOE Reading Rooms. As for the schedule, it can only be said: "DOE moves in mysterious ways."

Q: Can reports be catalogued?
A: Refer to preceding question.

Q: How much does it cost? Dollar-wise and FTEs?
A: Defer to DOE. The expenditures in both money and time are considerable, but well worth the investment.

Q: Do non-management employees have input?
A. Defer to DOE. An external observation is that management (mid-level) pays close attention to the "worker bees", utilizing their ideas.

Q: What does "holding time" mean? How come some samples don't meet time criteria? What can be done about it?

A: Defer to DOE and TNRCC. Radiological samples from this facility should not present a "holding time" concern.

Q: Training for the board to interpret monitoring reports.

A: This could involve significant outlay of time and expense for Board Members. The "Ex-Officio" State Agency and EPA representatives should provide support in this area.

Q: Is current monitoring adequate to account for "missing" material? Difference between what comes in and what goes out - mass balance.

A: Not applicable to radiological monitoring.

Q: If money weren't an object, could there be more monitoring?

A: Current radiological monitoring expenditures are sufficient.